

Lidar observation of aerosols and clouds in Jakarta, Indonesia

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We have started lidar observation in Jakarta last year (1997). The lidar network system for measuring air pollution in Jakarta was constructed in a research cooperation program of New Energy Development Organization (NEDO) and Indonesian Institute of Science (LIPI). The development of the system was conducted by the Optoelectronics Industry and Technology Development Association (OITDA).

The system consists of two Mie scattering lidars and one differential absorption lidar (DIAL) installed at three locations in Jakarta to study atmospheric boundary layer structure and transportation of air pollutants over Jakarta.

Figure 2 shows temporal variation of boundary layer structure observed with the lidar system in the wet season and in the dry season. NIES and KIM-LIPI plan to continue a long term cooperative observation using the lidar system.

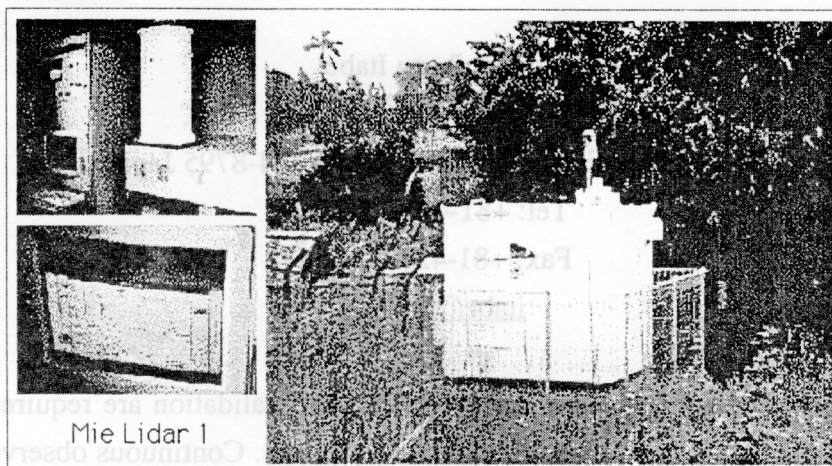


Fig. 1 Photograph of the Mie scattering lidar in Jakarta.

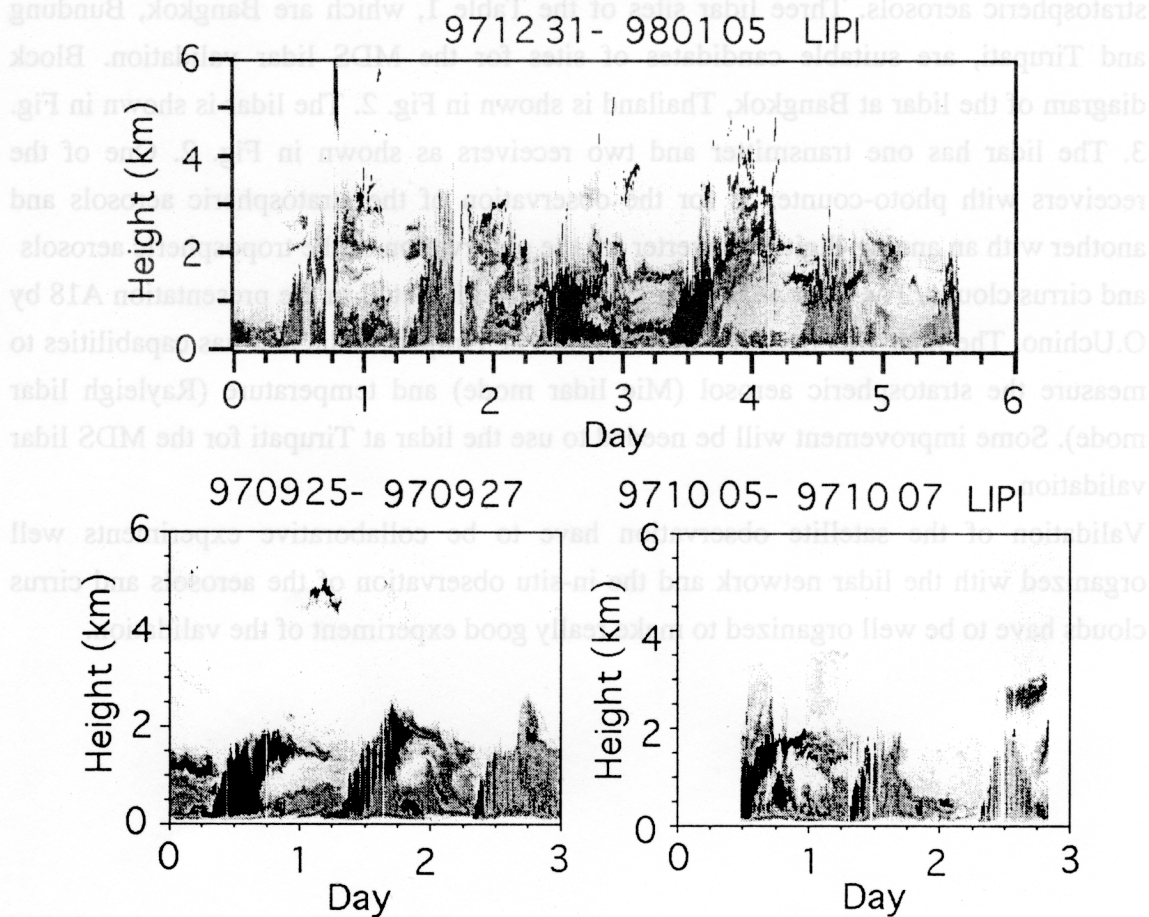


Fig. 2 Temporal variation of boundary layer structure over Jakarta in the wet season and in the dry season.